



PORTLAND-MILWAUKIE LIGHT RAIL PROJECT

# Final Environmental Impact Statement Snapshot

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Citizens Advisory Committee

April 15, 2010



Metro | *People places. Open spaces.*



# The Final EIS will

- Refine the analysis based on further design of the LPA
- Respond to all comments received during the SDEIS comment period
- Establish mitigation commitments for significant impacts

# Final EIS topics

## **Displacements and Acquisitions** - April

Parks and Recreational Resources

## **Land Use and Economy** - April

Community Impacts

Historic and Archaeological Resources

## **Visual Resources**

## **Noise and Vibration** - May

Geology and Soils

Air Quality

Energy Consumption

Hazardous Materials

Ecosystems

Water Quality

## **Safety and security**

Transit benefits

## **Transportation**



This information is draft and subject to change, pending publication of the Final EIS, May 2010.



# Acquisitions

More detail today

- Project approach to property:
  - Avoid
  - Minimize
  - Mitigate
- Utilize public right-of-way where possible
- Utilize railroad corridor where possible
- Design to minimize impact where possible

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# Acquisitions

More detail today

- Permanent property impacts
  - 77-94 full acquisitions
  - 108-121 partial acquisitions
  - Approximately 1/3 of above are public/utility property
  - *Ruby Junction*: 14 full taxlots /1 partial taxlot
- Displacements
  - Businesses - Approximately 60 businesses
  - Residences – Approximately 11 residences
  - *Ruby Junction*: 8 businesses/9 residences
- Relocation assistance

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# Land use and economy

More detail today

- Project is consistent with existing zoning and plans
- Support achievement of 2040 goals
- Coordination with ongoing planning efforts

Portland - Innovation Quadrant, station area planning and employment TOD

Milwaukie - South Downtown Plan

Clackamas County - McLoughlin Area Plan

- Creation of temporary and permanent jobs

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# Community impacts

- Evaluates effects to communities, with a focus on low-income and minority groups
- Analyzes neighborhood impacts and benefits given project affects, such as traffic, visual resources
- After mitigation for other areas, like noise and vibration, no additional mitigation needed



# Visual resources - design

More detail at a future CAC meeting

- Be consistent with neighborhood pattern and scale, where possible
- Buffer or reduce the loss of visual resources
- Reduce obstructions or limitations to designated views, view corridors, viewpoints, and important neighborhood features



# Minimize visual impacts

More detail at a future CAC meeting

- Impacts range from low to high
- Refine design of bridges, ramps and structures, where possible
- Use elements such as landscaping or fencing where impacts are high
- Replace or restore removed vegetation and landscaping where possible
- Consider neighborhood plan recommendations

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# Historic resources

## Westmoreland Duck Pond



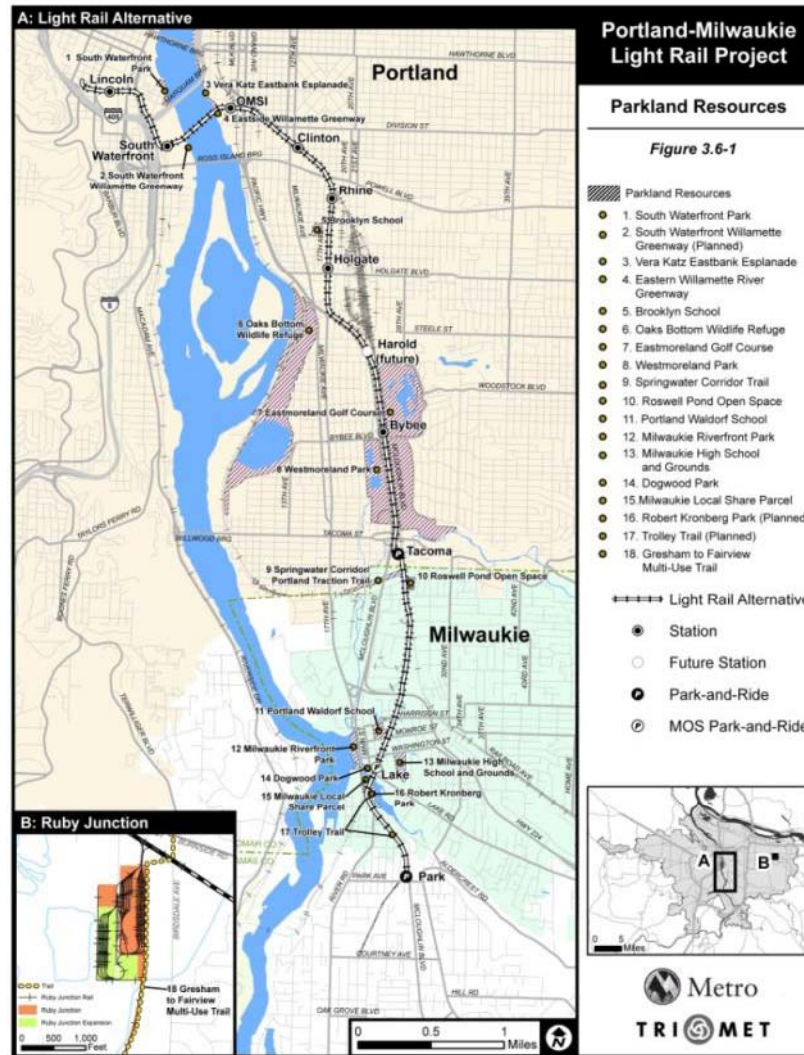
## Mitigation for Duck Pond

- Historic documentation including photos
- Station Design including history of park and photos



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# Park resources



- 18 resources surveyed
- Effects to 4 parks; temporary effect to one park

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# Park resources affected

- Eastside Willamette River Greenway
  - Change in location under new Willamette River Bridge
- Springwater Corridor
  - Connection under “3 bridges project”
- Westmoreland Park
  - Wetland mitigation at Duck Pond
- Trolley Trail
  - Co-locate alignment adjacent to trail, connections to Park Avenue station
- Robert Kronberg Park
  - Temporary use of small portion during construction

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# Ecosystems

	LPA	MOS
Wetlands	1.04 acres	1.04 acres
Waterways	7 crossings	6 crossings
Vegetation	16.2 acres	14.7 acres
Listed Threatened and Endangered Species* *Listed as threatened	Fall and Spring Chinook, Coho, Winter and Summer Steelhead, Green Sturgeon	

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# Efforts to avoid and minimize potential impacts



Willamette River bridge designed with two piers that largely avoid shallow water habitat

Crystal Springs Creek, currently in a culvert, will be spanned

Johnson Creek will be spanned

Crystal Creek and Spring Creek remain in culverts

Kellogg Lake will have one "H" pier in the lake

Courtney Springs is currently piped 30' underground

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# Mitigating for impacts that cannot be avoided



Remove derelict piles and restore native vegetation

Restore concrete Westmoreland duck pond to a natural state

Create storage for Johnson Creek flood waters

Remove derelict piles and restore native vegetation at Kellogg Lake

Grant\* for green, habitat-friendly Park Avenue Park and Ride

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\*not technically "mitigation"

# Water quality

Water quality and hydrology

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Impervious surfaces + stormwater management

## New Impervious Surface

LPA	18.5 acres
MOS	15.7 acres
Bridge Area Streetcar and Roadway Improvements	4.7 acres
Ruby Junction	0.7

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# Stormwater and flood management

- Tie and ballast track is an impervious surface
- Track on impervious surface reconstructed to meet current standards
- Stormwater facilities all along alignment meet city of Portland standards

Piers and rock for scour protection create a net rise of 0.6" that cannot be mitigated.

Tacoma Station



Milwaukie

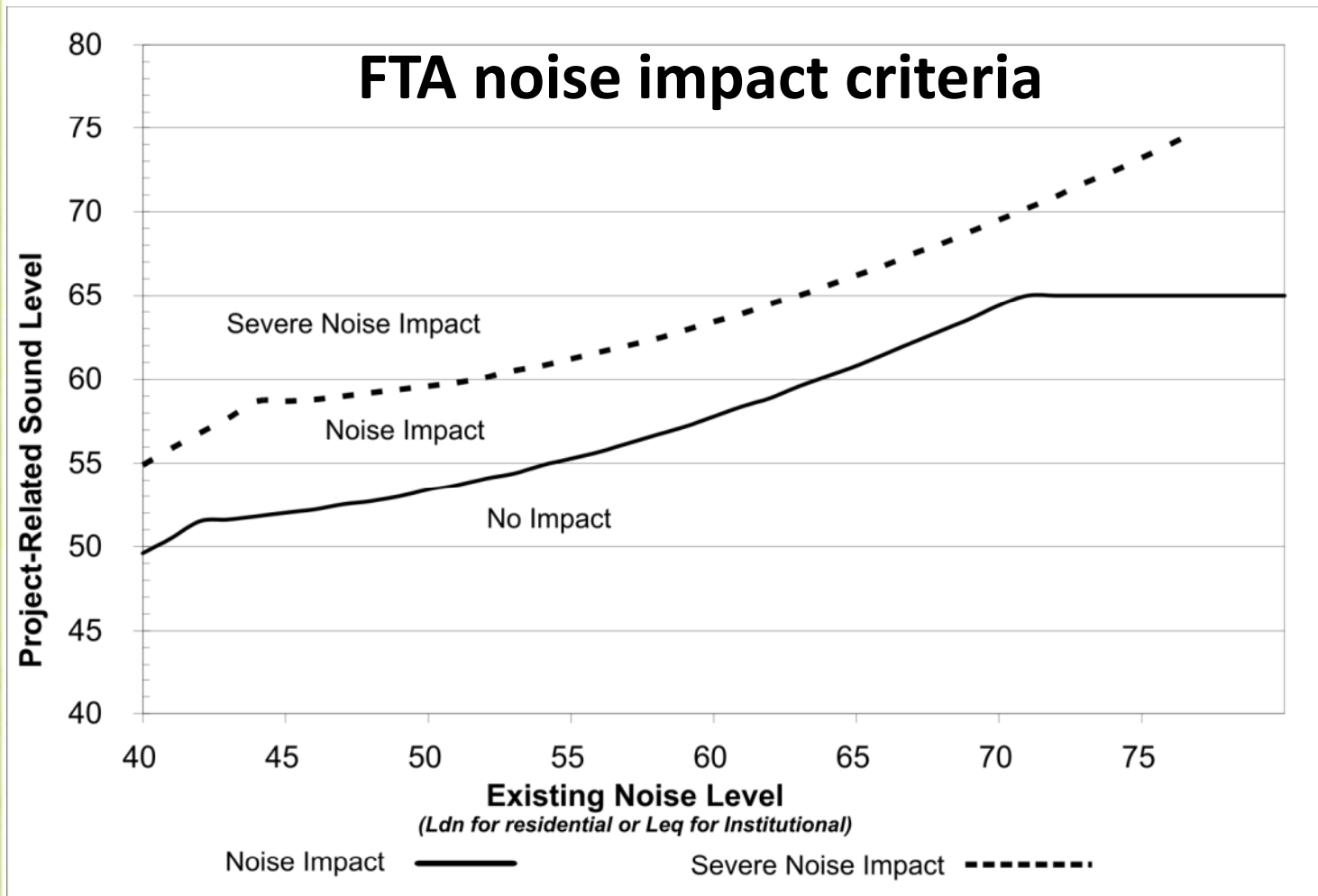
Fill in floodplain will be balanced with equal creation of floodplain

Water quality features

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# Noise and vibration

More detail at May CAC meeting



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# Noise and vibration impacts without/with mitigation

More detail at May CAC meeting

Alternative	Light Rail & Shared Transitway Noise Impacts		Traffic Noise Impacts	Vibration Impacts
	Moderate	Severe		
<b>LPA</b> to Park Ave	29	3	19	42
<b>LPA</b> to Park Ave. with Mitigation: Noise walls, Insulation, and adjustable bells w/shrouds	9 (Exterior)	0	0	9
<b>MOS</b> to Lake Rd	18	3	19	34
<b>MOS</b> to Lake Rd. with Mitigation: Noise walls, Insulation, and adjustable bells w/shrouds	9 (Exterior)	0	0	9

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# Hazardous materials



- Environmental, health and cost risk if handled improperly
- Project will identify and remediate affected haz mat areas
- Project will adhere to all applicable protocols

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# Safety and security

- Design of alignment - Crime Prevention through Environmental Design
- Enforcement
- School education program



# Transportation

## Analysis includes:

- Pedestrian system
- Bicycle network
- Off-street parking
- Traffic network
- Freight operations
- Transit ridership/operations



# Transportation

## Ped/bike improvement examples:

- Two 14-foot paths on Willamette River bridge
- Improved Powell undercrossing
- Improved pedestrian structures in Southeast Portland
- Accommodation of future pedestrian path over Kellogg Creek



# Transit

- 2030 Ridership
  - 25,500 average weekday boardings
  - 13,300 new daily transit trips
- Vehicle miles traveled reduction: 61,300
- Vehicle hours traveled reduction: 5,700
- Vehicle hours delay reduction: approx. 400

# Transit

## 2030 Transit Time

- 24 minutes by rail from Pioneer Square to Lake Rd

same as auto, 4 minutes faster than bus

- 19 minutes by rail from PSU to Lake Rd

4 minutes less than auto, 8 minutes faster than bus

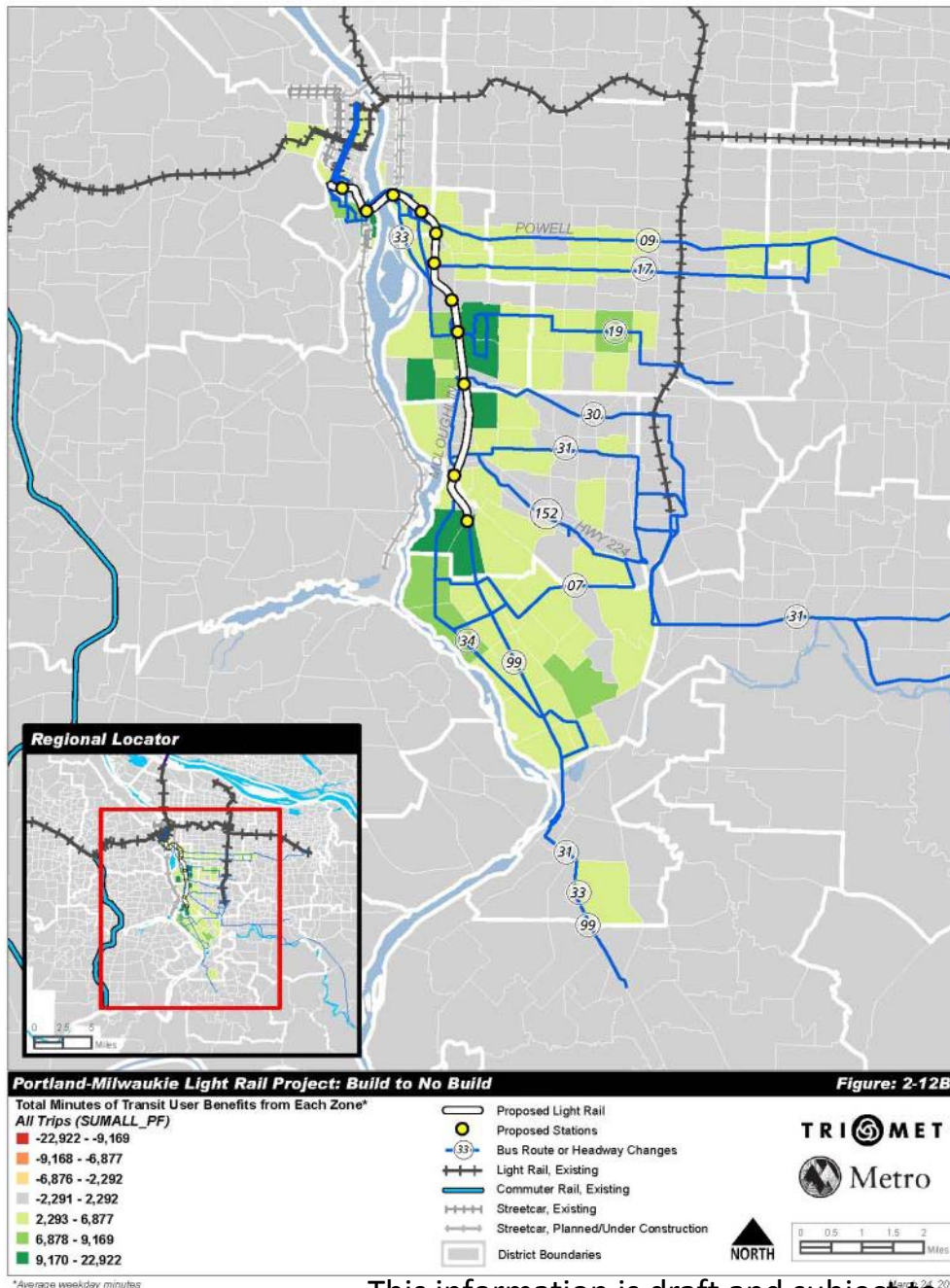
- 15 minutes by rail from S. Waterfront to Lake Rd

7 miles less than auto, 20 minutes faster than bus

# Transit

## User Benefits

- User benefits determined by new transit users and travel time savings to existing transit users
- Benefits extend outside of corridor to riders of 9, 17, and 19 buses that will use the new bridge



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# Local Transportation Impacts

At March CAC meeting

- Mitigation strategies allow for traffic operations similar to the No-Build
- For the LPA, mitigation measures identified at about 20 intersections

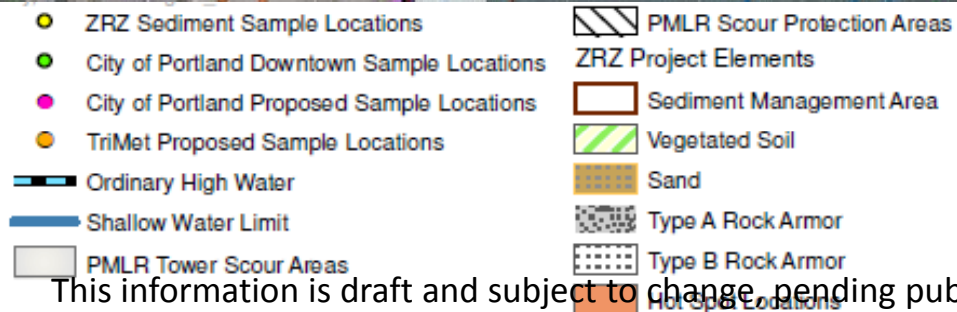
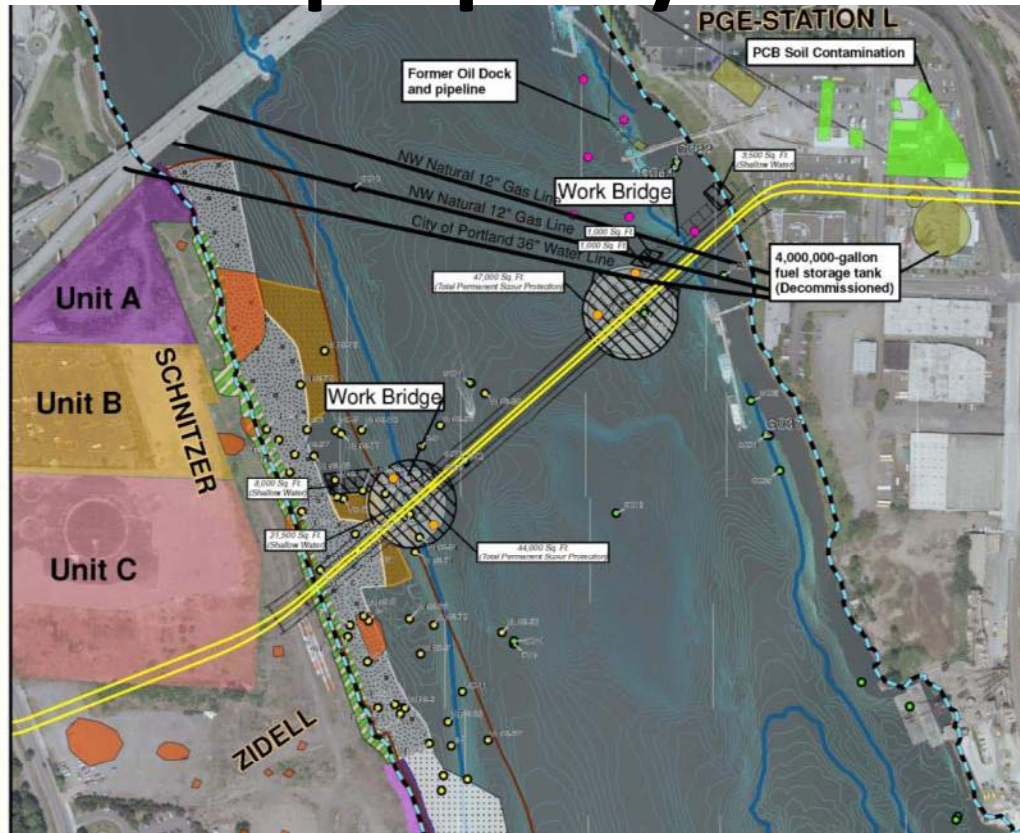
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# Other areas

- Geology and soils - no impacts
- Air quality - improved conditions
- Energy consumption - improved conditions

# Willamette River bridge and the Zidell property



Rock armor scour protection around piers

Work bridge constructed over Zidell sediment cap

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